

## UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE ☒ WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/abd. \_\_\_\_\_

DATE FILED 9-10-84

LAND: FEE &amp; PATENTED

STATE LEASE NO.

PUBLIC LEASE NO.

U-40414

INDIAN

DRILLING APPROVED: 9-12-84 - OIL

SPUDDED IN:

COMPLETED:

PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED:

FIELD:

WILDCAT

UNIT:

DEER RANGE

COUNTY:

KANE

WELL NO.

DEER RANGE UNIT FEDERAL #1

API #43-025-30020

LOCATION

1155' FNL

FT. FROM (N) (S) LINE.

2510' FEL

FT. FROM (E) (W) LINE.

NWNE

1/4 - 1/4 SEC.

33

TWP.

RGE.

SEC.

OPERATOR

TWP.

RGE.

SEC.

OPERATOR

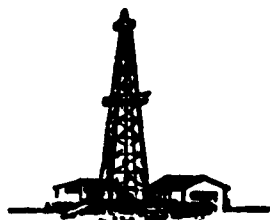
39S

3W

33

BOSWELL ENERGY CORP.

SEP 10 1984

DIVISION OF OIL  
GAS & MINING

## The Taha Corporation

September 5, 1984

State of Utah  
Div. of Oil, Gas & Mining  
4241 State Office Bldg.  
Salt Lake City 84114

Gentlemen:

Enclosed are two copies of an application for drilling permit for #1 Deer Range Federal, Kane County, Utah. Please note we are requesting information on this well be treated as **confidential**.

We are requesting an exception to the location rules to allow a location 130' from the west boundary and 160' from the south boundary of the NE/4 of section 33. This exception is being requested for topographic reasons, due to a 700' deep canyon to the east and south, which reasonably prevents us from locating in the center of the NE/4.

There are no producing oil or gas wells for 20 miles in any direction. Further, oil and gas leases covering all of section 33 are held by the same group which is applying to drill the proposed well.

We are currently planning to buy water from a local rancher. Will we still be required to obtain an approval from the Utah Div. of Water Rights? Please advise.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. H. Findeiss', written in a cursive, flowing style.

Steven H. Findeiss

Tel. 405 840-1199

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**CONFIDENTIAL**  
SUBMIT IN TRIPLICATE\*  
Other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Boswell Energy Corporation

3. ADDRESS OF OPERATOR

6600 N. Harvey, Suite 100, Oklahoma City, OK 73116

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface /

1160 FNL, 2510' FEL (NWNE)

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any)

130' to a lease owned by Boswell et al

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

none

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED TO THIS WELL

160

19. PROPOSED DEPTH

7,000

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6938 Ground elevation

22. APPROX. DATE WORK WILL START\*

10 October, 1984

23.

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
18"	14"	conductor	40'	50 sx Ready-mix
12 1/2"	9-5/8"	36# K-55	1700'	570 sx, circ. to surface
8-3/4"	7"	23&26# K-55	7000'	250 sx minimum
	or 5-1/2"	17# K-55	7000'	250 sx minimum

We propose to air- or mist-drill through the Navajo, set pipe through same, then drill conventionally to TD. Anticipated drilling time to 7,000': 35 days.

Double-gate hydraulic blowout preventers (blind ram and 4 1/2" pipe rams) will be used, rated to 3,000 psi working pressure. Surface casing and BOP will be pressure-checked to 1000 psi before drilling out.

**APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING**

DATE: 9/12/84  
BY: John R. Bay

**RECEIVED**

SEP 10 1984

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depth. If proposal is to plug back, give pertinent data on subsurface locations and measured and true vertical depth. If proposal is to plug back, give pertinent data on subsurface locations and measured and true vertical depth. If proposal is to plug back, give pertinent data on subsurface locations and measured and true vertical depth.

24.

SIGNED

*[Signature]*

TITLE Agent for Operator

DATE 24 August 1984

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

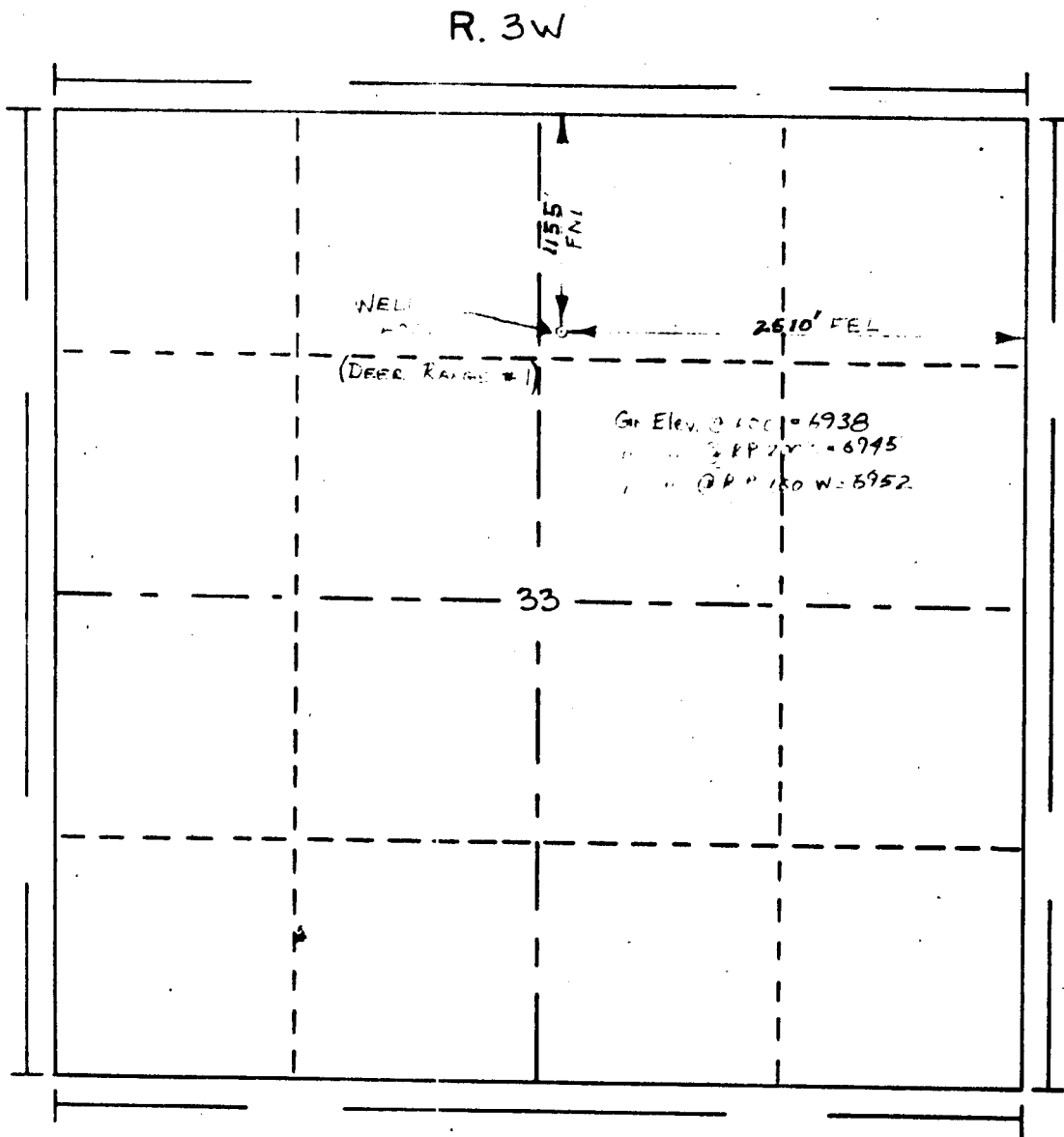
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



FORM E-106



Scale... 1" = 1000'

Powers Elevation of Denver, Colorado  
has in accordance with a request from STEVE FINDEISS  
for BOSWELL ENERGY  
determined the location of DEER RANGE #1  
to be 1155' FNL & 2510' FEL of Section 33 Township 39 South  
Range 3 West of the SALT LAKE Meridian  
KANIE County, UTAH

I hereby certify that this plat is an  
accurate representation of a correct  
survey showing the location of

Date: JULY 27, 1984E. Samuel StegemaLicensed Engineer  
State of COLORADO

No. 20596

"Utah exception"

STATE COPY

Mr. Ed Guynn  
Fluid Minerals Branch  
BLM Utah State Office  
Salt Lake City

24 August, 1984

Dear Mr. Guynn:

We hereby apply for a drilling permit for "#1 Deer Range USA," to be located in NWNE 33-39S-3W, Kane county, Utah. This is the initial test well for the Deer Range Unit, whose effective date is 23 April, 1984. We anticipate spudding around 10 October.

Form 3160-3 is attached hereto. The drilling plan, consisting of a drilling program and a surface use program, is given below.

#### DRILLING PROGRAM

1. Estimated tops of important geologic markers: Navajo 50'  
Kaibab 3850'  
Redwall 6900'
2. Fresh water is expected in the lower 1000' of the Navajo sandstone (600-1600'). This zone will be protected by air- or mist drilling, then setting 9-5/8" casing through the zone. Oil may be encountered in the Kaibab (3850-4000') and in the Redwall. Any shows will be tested.
3. Pressure control equipment will consist of two series-900 hydraulically actuated blowout preventers in tandem, one equipped with pipe rams, the other with blind rams. Each preventer will be rated to 3,000 psi. The pipe rams will be operated daily. The blind rams will be checked for operation when the drill string is out of the hole. Surface casing and BOP will be pressure-checked to 1000 psi before drilling out.
4. Supplementary information on drilling equipment: We anticipate using a relatively small rig, possibly a drive-in type, in order to minimize the number of truck loads needed.
5. Circulating material:  
  
Surface to 1700': Air, mist or foam  
1700' to 7000': Water-base mud, 8.5 ppg, 32-36 sec viscosity, water loss 8-10 ml./30 min. Mud may be aerated to further reduce weight where lost circulation is anticipated (see item 7 below for expected pressures). A gas detector will be used to monitor mud.
6. We anticipate drillstem testing the Kaibab and Redwall. Electric logs will be run to TD. No coring is anticipated.

7. All wells in this region have shown the underlying formations to be severely underpressured. This underpressure condition apparently exists for tens of miles in all directions, as well as in the nearest test, the PanAm "Paria 1-X" in 16-40S-2W, about 6 miles southeast. Bottomhole pressure is expected to be less than 2000 psi, with normal temperature.

No hydrogen sulfide or other noxious gas has been reported in other wells in the general area, and none is expected in this test. In any event no towns or settlements are located within several miles.

8. Other information: A request was made by BLM field personnel that if the well is plugged, it be capped flush with ground level, rather in the manner prescribed by the state of Utah. If the state will allow this variation, we will be glad to comply with this request.

#### SURFACE USE PROGRAM

1. Existing roads:

The location is at the end of the "Deer Range Road" (plat attached), which is apparently an old logging road running south about 4.8 miles from the county-maintained Kanab-Cannonville road. The Deer Range Road generally follows the elevation contours. It was bladed at some time in the past, and the cuts and embankments are quite noticeable. Near the south end of the road, dead trees cleared to create the original roadway are prominent.

All roads will be maintained in their existing condition, except for the slight improvements noted below.

2. Roads to be constructed: none

Road modifications proposed:

In accordance with the guidelines developed by BLM field personnel following an inspection of the access road and drillsite, very little improvement of the Deer Range Road is planned. The minor improvements that are planned will be essentially undetectable to the casual visitor.

The road surface will be very lightly bladed in the most heavily eroded sections, and about 3 one-foot-diameter culverts will be installed in existing narrow drainages (6 or 8 inches wide and about one foot deep) which cut across the road. The hairpin turn in NW $\frac{1}{4}$  of section 28 will be given a larger radius, but this will not require cutting any trees or doing any sensible earthmoving, since the area for the necessary 20 feet on the outside of the existing turn is level and clear.

In view of the lack of casual traffic and the objective of not improving access to a sensible degree, we propose to leave the road at its existing single-lane width. If this is approved, about five turnouts would be provided to allow vehicles to pass.

3. Existing wells within one mile: none.

4. Location of existing/proposed facilities if well is productive: A pump would occupy approximately a 15' x 30' area over the well. Tanks could be located to best suit aesthetic criteria. In the event of a discovery, the tanks could possibly be located at the turnoff from the Kanab-Cannonville road to the Deer Range Road. Generally, this information cannot be accurately presented at this time.
5. Water supply: Commercial sources, either at Kanab or Cannonville, trucked to the location.
6. Construction materials: The drill pad will be made from material removed from the reserve pit and from the uphill edge of the pad. No other local construction material will be utilized.
7. Methods for handling waste Disposal: Ordinary trash, sewage, and chemicals and any oil or salt water produced during testing will be trucked out and disposed of in approved commercial facilities. The reserve pit will be lined with 15 mil PVC liner to prevent seepage. Since the drilling fluids to be used are water-based, the reserve pit will be allowed to dry out and will then be filled in.
8. Ancillary facilities: None.
9. Well site layout: Plat is attached. Three sides of the reserve pit will be fenced during drilling, with the fourth side fenced when drilling is completed.
10. Plan for Reclamation of the Surface: After the pits have dried(1-2 months after well completion), the area will be graded to approximately the original contours. The drill pad will then be replanted and re-seeded as follows:
- Pinon pine - 10 seedlings per acre
  - Juniper - 10 seedlings per acre
  - Birch leaf mountain mahogany - 10 plants per acre
  - Antelope bitter brush - 1 pound of seed per acre
  - Yellow sweet clover - 1 pound of seed per acre
  - Indian rice grass - 1 pound of seed per acre
  - Galleta - 1 pound of seed per acre
- Seedlings will be mulched. Re-seeding and re-planting will take place next spring, with human reclamation actions completed by June, 1985.
- Note that proposed site reclamation will not affect the already-existing road berms or banks, nor the substantial number of dead trees piled beside the road from when it was originally bladed some years ago.
11. Surface ownership: The well location is federally owned, as are the lands crossed by the Deer Range Road, except that section 16 is owned by the state of Utah.
12. Additional information: This application was prepared by Steve Findeiss (tel. 405 840-1199) in conjunction with information supplied by the operator and BLM personnel, and following inspections of the location on 27 May and 15 August, 1984.

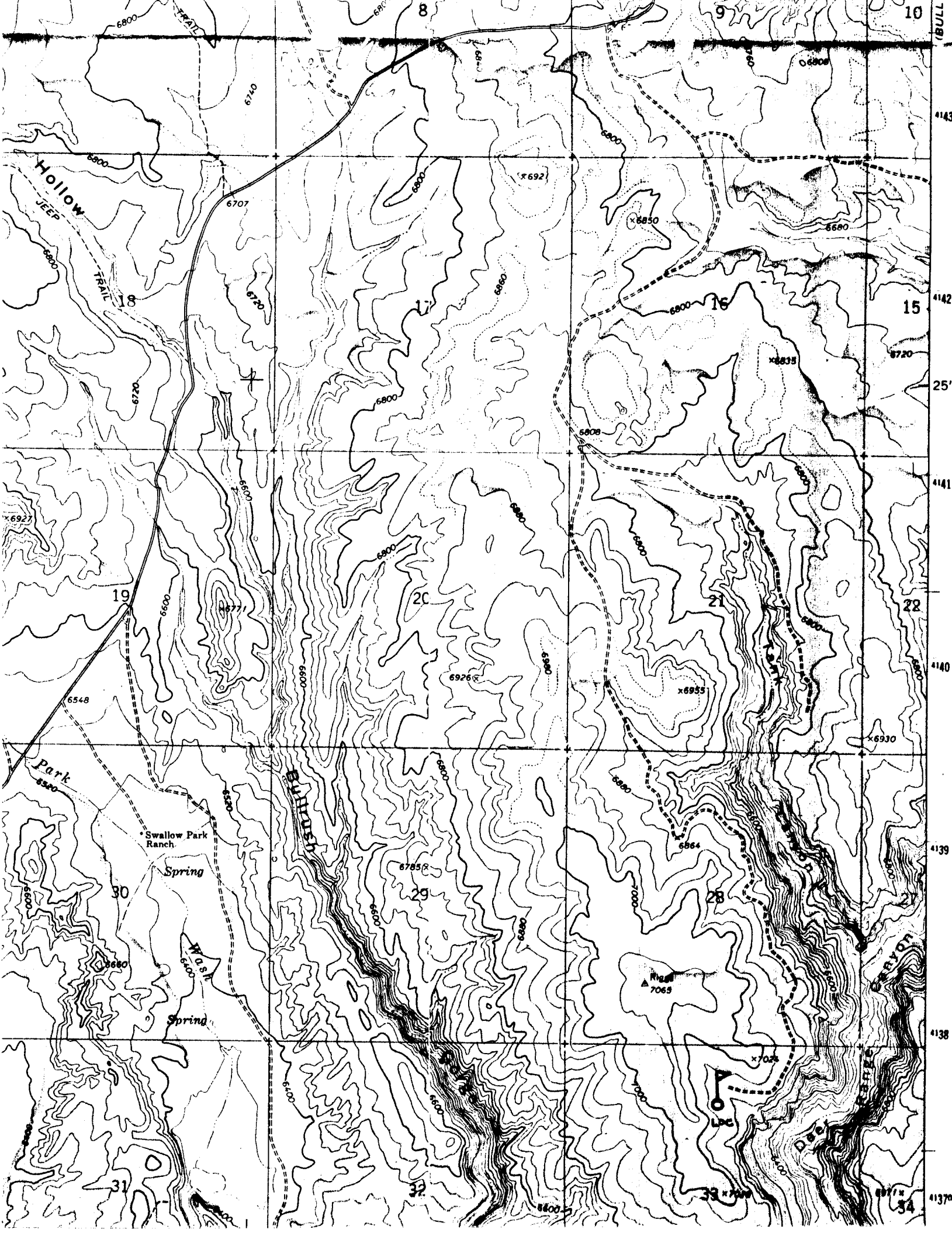
13. Operator's field representative: Mr. John Gordon  
Gordon Engineering  
P. O. Box 3525  
Grand Junction, CO 81502  
303 245-1958

I certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Boswell Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



Steven H. Findeiss  
Agent for Boswell Energy Corporation





BOSWELL ENERGY

DEER RANGE #1  
1155 FNL 7 Sec. 33-39S-  
2810 FEL } 3W  
KANE Co., UTAH

1" = 50'

C.I. = 5 feet

V-Door  $A = 317^{\circ} 22'$

C or F is Cut or Fill  
from existing ground  
to finish grade.

DIVERT

DRAINAGES

NECESSARY

6945  
6940  
6935  
TOPSOIL STOCKPILE

Access Road = 4.8 mi

RP 150' West  
(6992)

RESERVE PIT

16' x 105' x 100'  
(Bottom @ 6938)

Well

Gr. Elev = 6938  
Fin Grd = 6942

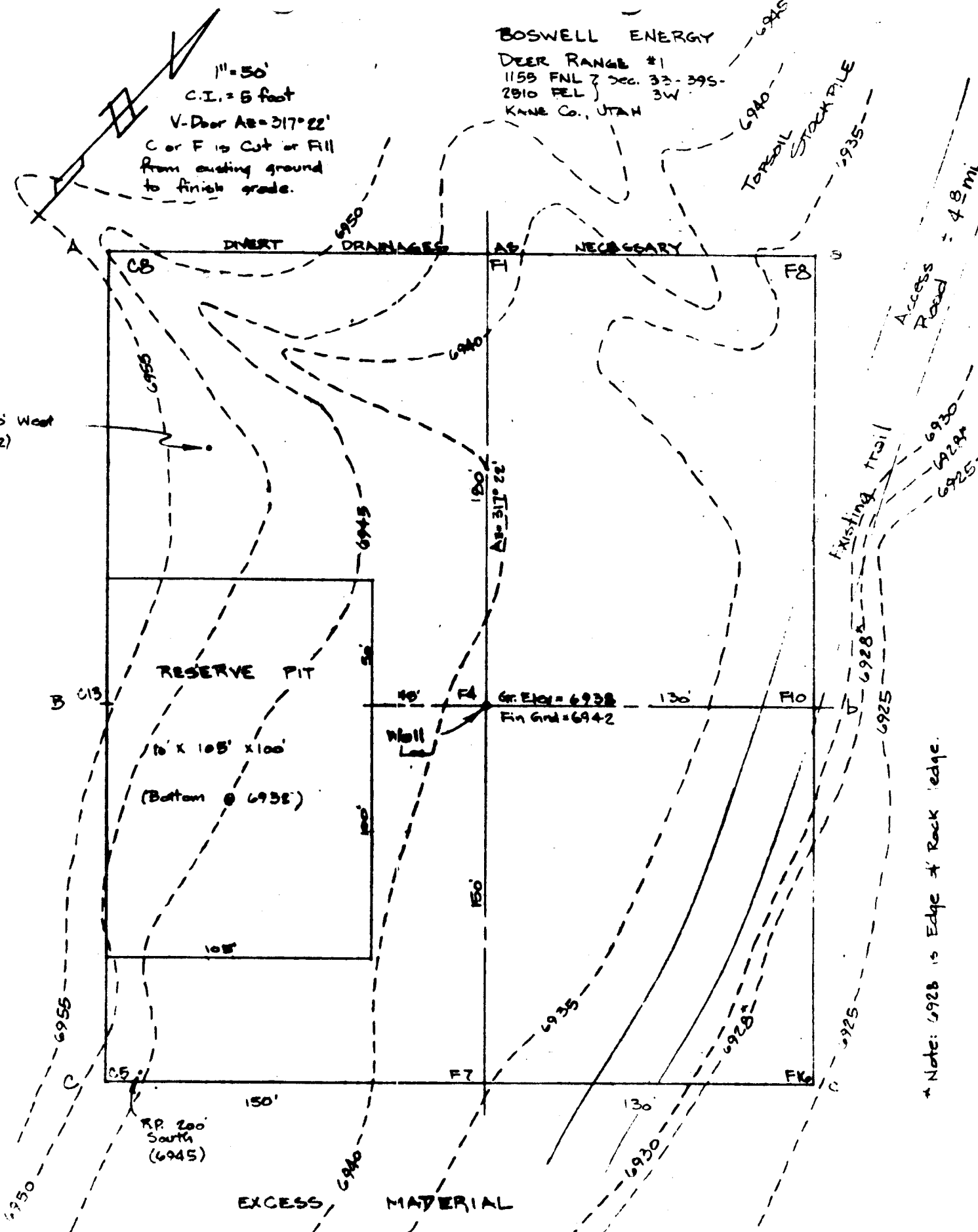
Existing Trail

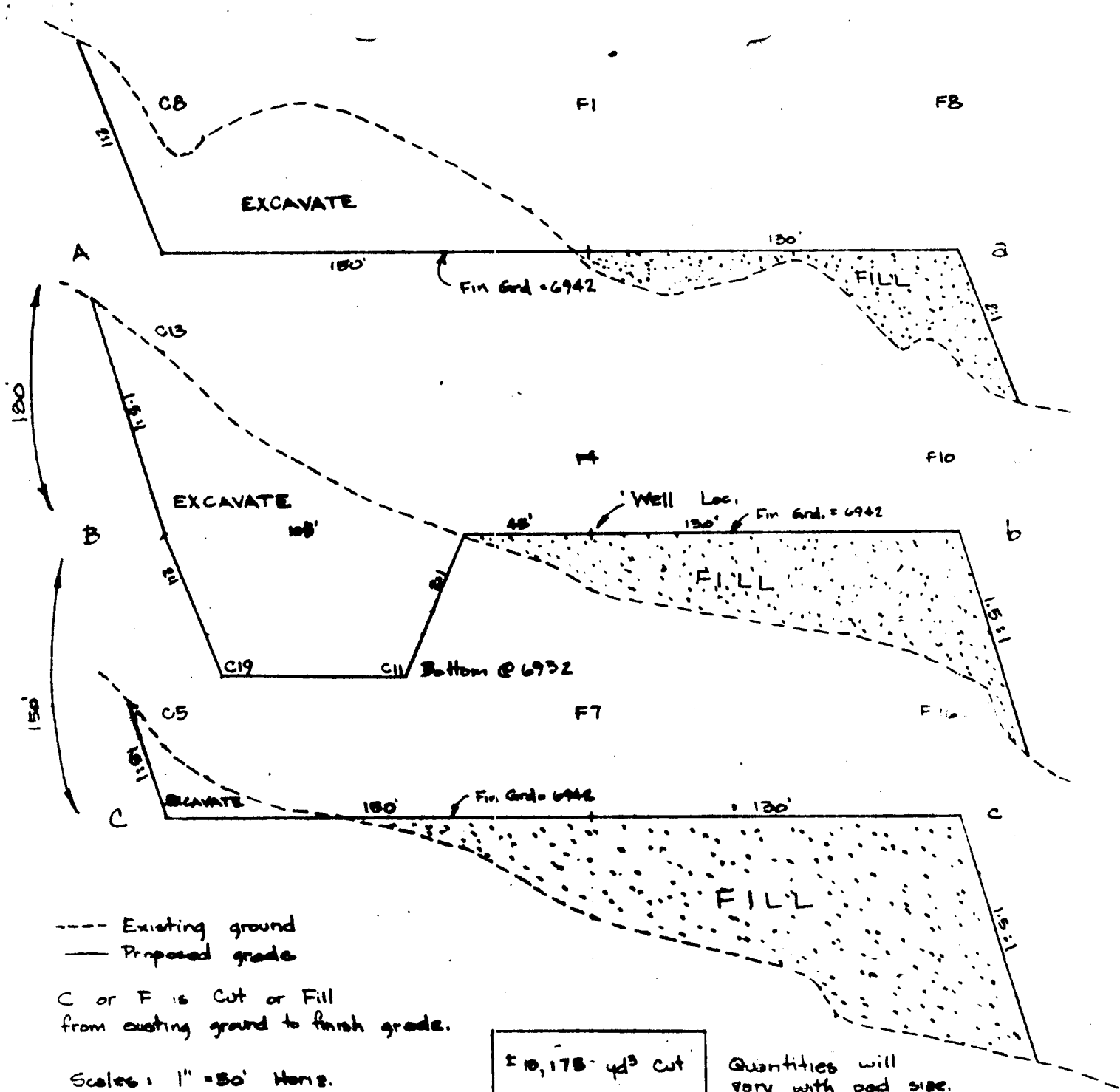
\* Note: 6928 is Edge of Rock ledge.

EXCESS MATERIAL

JULY 27, 1984  
E. SAMUEL STEIGMAN

POWERS ELEVATION CO.  
RICHFIELD, UTAH

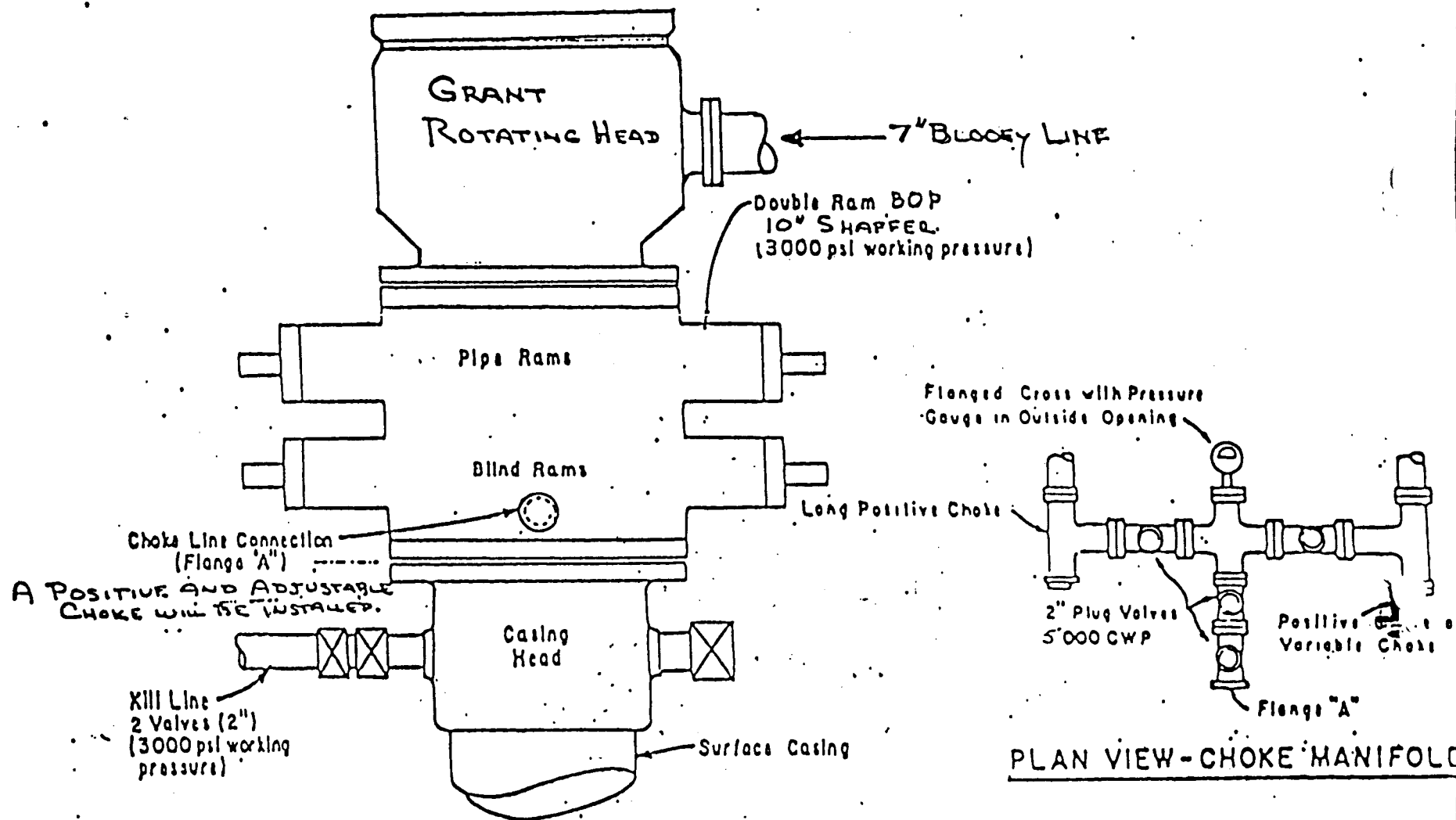




BOSWELL ENERGY  
 DEER RANGE #1  
 NW-NE 33-39S-3W  
 KANE Co, UTAH

JULY 27, 1984  
 E.S.S.

POWERS ELEVATION CO.  
 RICHFIELD, UTAH



#### TESTING REQUIRMENTS

Pipe rams: operated daily

Blind rams: operated and closed  
every opportunity.

Accumulation: Checked daily



United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
UTAH STATE OFFICE  
136 E. SOUTH TEMPLE  
SALT LAKE CITY, UTAH 84111

AUG 15 1984

IN REPLY REFER TO

3104  
(U-942)

AUG 13 1984

DECISION

Boswell Energy Corporation	:	\$50,000 Statewide
6600 N. Harvey	:	Oil and Gas Bond
Oklahoma City, Oklahoma 73116	:	(Nevada and Utah)

Bond Accepted

A \$50,000 statewide oil and gas bond, unnumbered, was filed in this office on August 8, 1984. The bond was executed August 6, 1984, with Boswell Energy Corporation as principal and The Travelers Indemnity Company as surety.

This bond constitutes coverage in the States of Nevada and Utah for obligations under oil and gas leases held or hereafter acquired by the principal, including lease offers, assignments, operating agreements, etc., issued under the authority of the Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands, as amended. The bond is satisfactory and is hereby accepted effective August 8, 1984, the date of filing.

Coverage under your statewide bond will not, however, extend to include additional principals, and the coverage does not extend to any lands where the principals are or become the unit operator but do not own the record title or operating rights in such lands either solely or jointly with others whose interests are likewise covered by appropriate bonds.

ACTING

*Jane J. Anderson*

Chief, Minerals  
Adjudication Section

**CONFIDENTIAL**

OPERATOR Boswell Energy Corp DATE 9-11-84

WELL NAME Deer Range Unit Fed #1

SEC NW NE 33 T 39S R 3W COUNTY Kane

43-025-30020  
API NUMBER

Fed  
TYPE OF LEASE

POSTING CHECK OFF:

☐

INDEX

☐

MAP

☐

HL

☐

NLD

☐☐

PI

PROCESSING COMMENTS:

Unit well  
Need water permit

~~CHIEF PETROLEUM ENGINEER REVIEW:~~

Note: P.A. marker will be flush w/ ground level  
as per BLM request.

APPROVAL LETTER:

SPACING:

☒

A-3

Deer Range  
UNIT

☐

c-3-a

CAUSE NO. & DATE

☐

c-3-b

☐

c-3-c

SPECIAL LANGUAGE:

1- Water

☒ RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

☒ AUTHENTICATE LEASE AND OPERATOR INFORMATION

☒ VERIFY ADEQUATE AND PROPER BONDING

☒ AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

☐ APPLY SPACING CONSIDERATION

☐ ORDER \_\_\_\_\_

☒ UNIT \_\_\_\_\_

☐ c-3-b

☐ c-3-c

☒ CHECK DISTANCE TO NEAREST WELL.

☐ CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.

☒ IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

☒ IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

☒ VERIFY LEGAL AND SUFFICIENT DRILLING WATER

CONFIDENTIAL



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

September 13, 1984

Boswell Energy Corporation  
6600 N. Harvey, Suite 100  
Oklahoma City, Oklahoma 73116

Gentlemen:

RE: Well No. Deer Range Unit Federal #1 - NWNE Sec. 33, T. 39S, R. 3W  
1155' FNL, 2510' FEL - Kane County, Utah

Approval to drill the above referenced oil well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 533-5771, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.



Page 2  
Boswell Energy Corporation  
Well No. Deer Range Unit Federal #1  
September 13, 1984

5. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-025-30020.

Sincerely,



R. L. Firth  
Associate Director, Oil & Gas

as  
Enclosures  
cc: Branch of Fluid Minerals



# United States Department of the Interior

IN REPLY REFER TO

3000  
UT-042

BUREAU OF LAND MANAGEMENT  
Cedar City District Office  
P.O. Box 724, 1579 North Main Street  
Cedar City, Utah 84720  
(801) 586-2401

October 5, 1984

Boswell Energy Corporation  
6600 N. Harvey  
Suite 100  
Oklahoma City, Oklahoma 73116

OCT 9 1984


Attn: Steven H. Findeiss

Dear Mr. Findeiss:

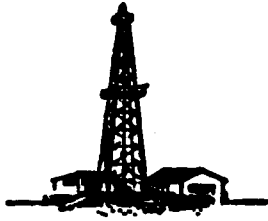
On September 10, 1984, the BLM received the Application for Permit to Drill (APD) the Deer Range Federal # 1, located in T. 39 S., R. 3 W., NWNE, Section 33. The Cedar City District is making every effort to process the application as expeditiously as possible. However, because the proposed well is located within the Paria-Hackberry wilderness study area, there are important differences in processing this APD than there would be for a well that is not located in a wilderness study area. Because wilderness study areas are managed under strict guidelines to ensure non-impairment of wilderness values, and because of the controversy often resulting from proposed actions in these areas, we feel that ample opportunity must be allowed for adequate public involvement in the approval process.

The process we are following consists of notifying all interested parties by mail of the proposed action and that we are in the process of completing an environmental analysis. Those who choose to provide input based on this notification, as well as others who request it, will be sent a copy of the environmental analysis, when completed, for comments. The EA will then be finalized and a decision document prepared. Assuming the decision is to approve the APD, a minimum of 15 additional day's time must be allowed to give interested parties sufficient time to prepare a response, legal or otherwise, to the decision.

This process will not permit final action on the APD before December 15, 1984. While we regret any inconvenience or delays the above procedure may cause, we feel there must be time for full public involvement in the process. Since the affected unit will expire after October 23, 1984, unless the obligation well is spudded, and since we do not foresee approval of the APD prior to December 15, 1984, we encourage you to apply for an extension on your obligation date if you do not wish to risk expiration of the unit. This request should be made directly to the State Director, Bureau of Land Management, Utah State Office, University Club Building, 136 East South Temple, Salt Lake City, Utah 84111.

  
Morgan S. Jensen  
District Manager

cc: Bill Martens, UT-922  
Rex Rowley, Kanab Resource Area



## The Taha Corporation

October 29, 1984

Mr. John Baza  
Utah Oil & Gas Commission  
Drilling Permit Section  
Salt Lake City

**RECEIVED**

NOV 05 1984

**DIVISION OF OIL  
GAS & MINING**

Dear John:

The BLM has delayed issuance of a drilling permit for our Deer Run Federal wildcat in 33-39S-3W, Kane County. As noted in the enclosed letter from Morgan Jensen of their Cedar City office, they're estimating 15 December for the issue date.

As this would put us on location in the worst of the winter, we've asked for a six month extension on the unit. If granted, we would probably be spudding around 1 April of next year.

Just as soon as we hear from the BLM as to how long an extension they will grant, we'll be in touch with you.

Sincerely,

Steve Findeiss  
Agent for Boswell Energy

Encl: ltr from BLM  
5 Oct. 84

RECEIVED  
OCT 30 1984

NOV 05 1984

RECEIVED  
OCT 30 1984



# United States Department of the Interior

IN REPLY REFER TO

3000  
CCDO #007-84

## BUREAU OF LAND MANAGEMENT

Cedar City District Office  
P.O. Box 724, 1579 North Main  
Cedar City, Utah 84720  
(801) 586 2401

November 15, 1984

**RECEIVED**  
NOV 20 1984

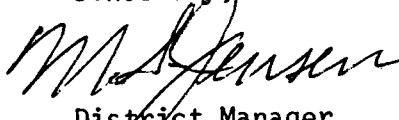
### DIVISION OF OIL, GAS & MINING

Dear Citizen:

As requested, we have enclosed a copy of the draft environmental assesement (EA) on the Boswell Energy Coporation's Application for Permit to Drill (APD) a test oil well, the Deer Range Federal #1, located in NW $\frac{1}{4}$  NE $\frac{1}{4}$  Section 33, T39S, R3W.

Any comments you wish to be considered in development of the final EA and decision on the APD must be received in this office by December 15, 1984.

Sincerely,

  
District Manager

Enclosure (1)

ENVIRONMENTAL ASSESSMENT

UT-040-84-96

BOSWELL ENERGY APD

Paria Hackberry WSA

LEASE NO. U-40414

(NW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 33, T. 39 S., R. 3 W)

KANE COUNTY, UTAH

PREPARED BY: Pete Kilbourne  
Kanab Area Geologist  
Cedar City District, BLM

**RECEIVED**  
NOV 20 1984

**DIVISION OF  
OIL, GAS & MINING**

PARTICIPATING STAFF:

Blaine Lunceford - Range Conservationist  
Mark Littlefield - Wildlife Biologist  
Phil Damon - Recreation Planner  
Max Hodson - Soil Scientist

BOSWELL ENERGY APD - PARIA HACKBERRY WSA

DECISION RECORD/RATIONALE/MITIGATION

ENVIRONMENTAL COMPLIANCE:

A review of the Environmental Assessment and mitigating measures indicates that the proposed action would not result in significant impacts to the human environment. Therefore, an Environmental Impact Statement is not required to further analyze the environmental effects of the proposed action.

DECISION

Boswell Energy will be allowed to drill the Deer Range exploratory oil and gas well in NW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 33, T. 39 S, R 3 W SLM on oil and gas lease U-40414 as proposed in the APD subject to the "Conditions of Approval for Notice to Drill".

RATIONALE

The existing access will create no new impacts to the Paria Hackberry WSA. The impacts of the drill site will be temporary in nature, the site is substantially unnoticeable in the Wilderness Study Area as a whole, and the site can be reclaimed to the point where natural succession is occurring. Thus, the proposed action with mitigating measures meets the nonimpairment criteria of the Interim Management Policy and Guidelines for Lands Under Wilderness Review.

MITIGATION

See the "Conditions of Approval" for "Notice to Drill" and Section on Mitigation in the Environmental Assessment.

Prepared by: Pete Kilbourne 11/7/84  
Kanab Area Geologist Date

Recommended by: \_\_\_\_\_ Date  
Area Manager

Reviewed by: David J. Ewart 11-7-84  
Environmental Coordinator Date

Approved by: \_\_\_\_\_ Date  
District Manager

## I. INTRODUCTION

An Application for Permit to Drill (APD) a wildcat exploratory oil and gas well has been submitted by Boswell Energy Company. The application follows an onsite investigation conducted with BLM personnel and Steve Findeiss of Boswell Energy/Taha Corporation, and numerous phone communications between Steve Findeiss and Pete Kilbourne of BLM. During the onsite and phone communications, environmental concerns were discussed in order to mitigate potential impacts. Topics discussed included: access; drill pad construction; air, water and visual quality; Interim Management requirements for Lands Under Wilderness Review; reclamation; post exploration road use; waste disposal; and alternative access and drill sites.

### Purpose and Need

The purpose of the action is to explore for a potentially valuable oil and gas resource within Boswell oil and gas lease 40414, to obtain subsurface geologic information for future exploration, and to satisfy the drilling requirement of a unit agreement.

## II. DESCRIPTION OF ALTERNATIVES

### A. Proposed Action

The proposed action is to drill an exploratory wildcat oil and gas well in NW $\frac{1}{4}$ NE $\frac{1}{4}$  Section 33, T 39 S, R 3 W within the Paria Hackberry Wilderness Study Area (see maps 1 and 2). The action includes a 2 acre drill pad to be constructed within the WSA. A hairpin curve outside the WSA would have its radius extended by 20 feet to permit drill rig access. The area of disturbance would be about one-tenth of an acre. The area is level and free of trees. In addition, some light grading of the existing access road would be required on the most highly eroded areas and the placement of three 12 inch culverts. Measures for protection of the surface are described in detail in Surface Use Program of the APD, Appendix A.

### B. No Action Alternative

This alternative would deny the proposed action.

### C. Other Alternatives Considered But Not Analyzed

Other alternatives for access and drill site location were discussed during the onsite investigation prior to submission of the APD. They included directional drilling and helicopter access. These options were not analyzed because they would not solve any significant impacts created by the proposal.

### III. AFFECTED ENVIRONMENT

#### A. Topography

Topography from the junction of the Skutumpah Road and the existing access to the drill site crosses rolling pinyon and juniper hills, sage flats, and a few minor drainages.

The proposed site is 1/4 mile within the Paria Hackberry Wilderness Study Area on the east side of the ridge of Mud Point. The existing access to the proposed site follows a contour above nearly horizontal rock strata on the eastern sideslope of the ridge of Mud Point. The road lies approximately 150 vertical feet from the ridgetop and 600 feet above the bottom of Deer Range Canyon. The sideslope above the road averages approximately 10 percent. Below the road, the canyon walls drop steeply to the canyon bottom.

The drill site lies on a bench above the resistant rock strata and topographically varies from flat to a 5 percent sideslope along the western edge of the proposed pad. The southeastern corner of the proposed pad lies on a 5 - 8 percent rocky east facing sideslope immediately above Deer Range Canyon.

#### B. Geology and Mineral Resources

The drill site lies on an anticlinal geologic structure that potentially could hold 30 million barrels of oil according to Steve Findeiss of Taha/Boswell.

Little oil and gas resource information is available for this area. A dry hole, with traces of oil, was drilled 12 miles to the northeast. This was the closest exploratory well to the proposed drill site. The producing Upper Valley Oil field lies 22 miles to the northeast.

The surface geology of the drill site and access road is entirely within the Navajo Sandstone which is highly jointed in the drill site area. Less than 100 vertical feet above the drill site is the contact with the overlying Carmel Formation.

#### C. Soils

Soils along most of the access and at the drill site are sandy loams derived from the Navajo Sandstone. The slight clay content was probably derived from the Carmel formation. Sandstone outcrops exist along the southeastern edge of the drill pad and along the northern edge of the pad within a small shallow ephemeral drainage. Soil depths are estimated to range from 0 to 4 feet, thickening from east to west. A white carbonate soil layer occurs several inches below the soil surface. The soils are likely to be a suitable growth medium.



Erosion potential at the drill site is generally low because of the low slope angle (0 to 5 percent), generally well drained character of the soils, and the existence of resistant bedrock areas.

#### D. Hydrology

As described above, a small shallow ephemeral drainage crosses the northern edge of the proposed drill site. The existing access crosses intermittent drainages in the NW¼ Section 28 and SW¼ Section 16, T. 39 S., R. 3 W. Passable (drivable) road washouts exist in these areas. The washouts are typically about 1 foot deep and 1 foot wide. Other than sheet wash during heavy showers, no other signs of surface flow are associated with the proposed drill site and existing access.

The permeable nature of the Navajo Sandstone, the jointed structure of the bedrock, and well drained character of the soil of the project area indicate that percolation rates would be relatively fast.

#### E. Climate

The ground elevation of the drill site is 6938 feet above sea level.

Annual precipitation is approximately 12 inches, most of which falls as rain from thunder storms. Some winter snowfall also occurs.

#### F. Vegetation

Vegetation and approximate percentage of vegetation at the drill site area is as follows: (A) Grasses - Indian rice grass (1%), mutton grass (3%), needle and thread and blue gramma grasses (trace); (B) Forbes - Parea breadroot, yucca, beard tongue and mustard (trace); (C) - Trees and Shrubs - two needle pinyon (54%), Utah juniper (25%), big sagebrush (8%), birchleaf mt. mahogany (2%), squaw apple (1%), antelope bitterbrush (trace), manzanita (1%), Utah serviceberry (5%), cliffrose (trace), big rabbitbrush (trace), single leaf ash (trace). The above vegetation covers approximately 20 to 25 percent of the ground surface of the drill pad area.

The Parea breadroot is proposed to be listed as a threatened plant species. Eight plants occur in the south central part of the proposed pad within 25 feet of the south end centerline. Many other plants occur in scattered locations down the ridge to the south of the pad, indicating that the drill pad covers only a small portion of the total population on this ridge. No listed threatened or endangered plants occur within the project area. (Appendix B).

## G. Wildlife

Approximately 2 acres of wildlife habitat would be affected by this project. Animals found in the general area of the site are typical of those found in the pinyon/juniper community throughout the Kanab Resource Area.

These may include: horned lizard, western collard lizard, side-blotched lizard, various songbirds, common raven, white-throated swift, canyon wren, redtailed hawks, cooperhawk, jackrabbit, cotton-tail rabbit, antelope ground squirrel, various mice species, kangaroo rats, coyote, gray fox, mule deer, mountain lion. No threatened or endangered animal species were found to be present at or near the proposed project. (Appendix C).

## H. Paria Hackberry Wilderness Study Area - Wilderness Review Status

The proposed drill site and approximately  $\frac{1}{4}$  mile of the existing access lie within the Paria Hackberry Wilderness Study Area. A preliminary site specific analysis was completed and published by the Cedar City District on July 30, 1982. A statewide Wilderness EIS is presently being prepared which will make wilderness suitability recommendations for all Utah BLM Wilderness Study areas. The area is presently managed under the BLM Policy and Guidelines for Lands Under Wilderness Review, and the proposed action will be subject to the nonimpairment criteria.

## I. Recreational Use

Recreational use of the project area portion of the wilderness study area is minimal. It probably receives some hunter use. The canyon area below the project area receives minimal hiker use.

## J. Visual Resources

The proposed drill pad and existing access lie on a bench on the gentle eastern sideslope of a ridge, 600 feet above the near vertical walled Deer Range Canyon as shown on the enclosed map. The visual character of the drill site area can be visualized by examining photo number 3. The area is a typical pinyon/juniper vegetative site common to the Kanab Resource Area. Photographs included in Appendix E should be examined for further information on the area's visual characteristics.

The canyon below the drill site is narrow and winding with interesting and spectacular canyon walls. (Photo number 4). The east side of Deer Range Canyon which displays near vertical paralleled joint structures, and large scale crossbedding is visible from the east edge of the drill pad (Photo number 5) and the existing access road. The canyon bottom is only visible by hiking down the ridge

below the drill site. The drill site and access are only visible from the ridge east of Deer Range Canyon and the immediate vicinity of the site itself as noted on map number 2.

The visual character of the existing areas outside the WSA is similar to that described above as it parallels Tank Canyon (tributary to Deer Range Canyon). Further north the area crosses rolling pinyon and juniper hills and sage flats.

K. Cultural Resources

A cultural resource inventory was conducted in the project area by La Plata Archaeological Consultants. No cultural resources were found within the project area. (See Appendix D).

L. Special Environmental Factors

No floodplains/prime unique farmland, areas of critical environmental concerns (ACEC), threatened or endangered species or historical/archaeological resources are located in the project area.

IV. ENVIRONMENTAL CONSEQUENCES OF PROPOSED ACTION

A. Soils

The existing soil profile would be altered and the carbonate and substratum rocky layers mixed. Mixing of the soil material will change the color and texture of the soil on the reclaimed area.

B. Vegetation

The drill pad construction would remove the plant species described in the affected environment section over a 2-acre area. Success of the revegetation/reclamation measures described in the APD cannot be assured due to uncertainty regarding rodent and livestock use and weather conditions. The eight Parea breadroot plants (proposed threatened plant species) at the edge of the proposed drill pad would be destroyed under the proposed action. Although they represent only a small portion of the total population on the ridge, the Bureau's T&E plant specialist recommends that the plants be avoided.

C. Wildlife

Approximately 2 acres of wildlife habitat would be disturbed for about 35 days. Both large and small animals utilizing the site would be temporarily displaced. After reclamation the animals would be able to move back to the site and would not be affected significantly over the long term.

D. Paria Hackberry Wilderness Study Area

The solitude opportunities associated with the drill site will be temporarily impaired by equipment noise and the visual aspects of the drill pad construction and drilling activities (35 days). These activities will not be visible from Deer Range Canyon, but they will be visible from the ridge top east of Deer Range Canyon and the site area itself. The noise impacts could carry into Deer Range Canyon.

The site is located near the northwestern boundary of the WSA and is not visible from the WSA as a whole. It is estimated that the site could only be seen over a 210-acre area which is only .15 percent of the 135,822 acres in the WSA.

Initial reclamation will include recontouring to near original form and the planting of seedlings and seeding. Seedlings will contrast in size with the mature trees and shrubs of the surrounding area. However, at this time natural succession will begin. Thus, the proposed action meets the wilderness protection standards of the BLM Policy and Guidelines for Lands Under Wilderness Review.

E. Recreational Use

During drill pad construction, drilling and rehabilitation work (about 35 days), could have some disruption of visitor use in the form of visual quality changes and noise created by vehicles and drilling.

After reclamation, noise impacts would be eliminated and visual impacts would be reduced but not completely eliminated. See also visual resources below.

F. Visual Resources

The drill pad and equipment could be seen over a 210-acre area as determined by a line of sight analysis.

After reclamation, which includes reseeding, planting of seedlings, and recontouring to near original form, there would be the following changes from the existing visual conditions: Changes in soil color would result, and the size (form) contrast between mature trees and shrubs and the seedlings of the reclaimed site could be noticeable.

Only minimal grading and culvert placement would occur along the existing access outside the WSA. Therefore, there would be no significant visual changes.

V. ENVIRONMENTAL CONSEQUENCES OF THE NO ACTION ALTERNATIVE

This alternative would create no impact to the existing environment.

Natural biological and physical processes would continue being the dominant forces in the environment.

This alternative would deny the lease holder opportunity to gain new oil and gas resource information about the area. This drill data would be useful in future congressional evaluations of the area's wilderness potential.

#### VI. MITIGATION OF PROPOSED ACTION

The following stipulations will be required.

1. Initial revegetation must be done in the fall of 1985.
2. Revegetation efforts will be required until considered successful by the authorized officer.
3. In order to ensure that the eight individual Parea breadroot plants that lie near the south end centerline of the pad are not impacted, the area will be flagged by BLM personnel and avoided by the operator.
4. The area actually excavated for the drill pad must not exceed the area needed for operations.
5. All efforts must be made to place the drilling equipment within the topography such that surface disturbance will be kept to a minimum.
6. All trees and limbs exceeding 4" in diameter will be cut into conveniently manageable lengths and neatly stockpiled outside the Wilderness Study Area in an area designated by the Authorized Officer. Smaller vegetative waste will be stockpiled and burned except for materials such as twigs and needles suitable for mulch which may be applied to the reclamation area to enhance moisture holding capabilities of the soil. When possible, stumps may be disposed of by burning. However, any remaining unburned stumps and other vegetative waste must be disposed of outside of the Wilderness Study Area in an area designated by the Authorized Officer.
7. Any rocky or carbonate soils must be placed at the bottom of the reclaimed soil profile in order to avoid changes in soil color and texture, and to ensure successful revegetation. Any available topsoil will be stockpiled for replacement at the surface during reclamation.

## VII. SHORT TERM USE VERSUS LONG TERM PRODUCTIVITY

In the short term, the proposed oil and gas exploration would provide temporary employment for drilling and construction contractors.

Local motel and restaurant businesses in Kanab would be economically benefitted by project related personnel use.

In the long term, should exploration yield producible oil and gas, it is possible that the drill site would be permanent. Additional wells might be drilled in the area increasing access and drill pad construction impacts. There would be possible cumulative impacts to visual resources, recreational use, watershed conditions, socio-economics, etc. Oil and gas production would provide potential beneficial social and economic impact to the local communities and to the oil and gas industry.

The future legal status of wilderness at the site is unknown at this time. Three alternative futures are possible. 1) The site could remain under review status for the long term. 2) The site could be included in the National Wilderness Preservation System by statute. 3) The site could be released by statute from review. Additional Environmental Analysis would be required prior to approval of any drilling or development subsequent to the proposed action.

## VIII. IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

If no producible oil and gas is discovered, the commitment of resources would not be unretrievable because wilderness character would not be impaired during the exploration phase. If producible oil and gas is discovered, it is not known what commitment of resources would exist because of the uncertain future legal status of the WSA.

## XI. PERSONS AND GROUPS CONSULTED

The following persons were consulted:

Gary McFarlane - Utah Wilderness Society

Mr. McFarlane was concerned about the area's revegetation potential.

State of Utah Division of Wildlife Resources

Division of Wildlife Resources see no serious conflicts with wildlife resulting from a test well in the Paria-Hackberry area, T. 39 S., R. 3 W., Section 33, NWNE, Kane County.

## APPENDIX A

### SURFACE USE PROGRAM

#### 1. Existing roads:

The location is at the end of the "Deer Range Road" (plat attached), which is apparently an old logging road running south about 4.8 miles from the county-maintained Kanab-Cannonville road. The Deer Range Road generally follows the elevation contours. It was bladed at some time in the past, and the cuts and embankments are quite noticeable. Near the south end of the road, dead trees cleared to create the original roadway are prominent.

All roads will be maintained in their existing condition, except for the slight improvements noted below.

#### 2. Roads to be constructed: none

##### Road modifications proposed:

In accordance with the guidelines developed by BLM field personnel following an inspection of the access road and drillsite, very little improvement of the Deer Range Road is planned. The minor improvements that are planned will be essentially undetectable to the casual visitor.

The road surface will be very lightly bladed in the most heavily eroded sections, and about 3 one-foot-diameter culverts will be installed in existing narrow drainages (6 or 8 inches wide and about one foot deep) which cut across the road. The hairpin turn in NW $\frac{1}{4}$  of section 28 will be given a larger radius, but this will not require cutting any trees or doing any sensible earthmoving, since the area for the necessary 20 feet on the outside of the existing turn is level and clear.

In view of the lack of casual traffic and the objective of not improving access to a sensible degree, we propose to leave the road at its existing single-lane width. If this is approved, about five turnouts would be provided to allow vehicles to pass.

#### 3. Existing wells within one mile: none.

4. Location of existing/proposed facilities If well is productive: A pump would occupy approximately a 15' x 30' area over the well. Tanks could be located to best suit aesthetic criteria. In the event of a discovery, the tanks could possibly be located at the turnoff from the Kanab-Cannonville road to the Deer Range Road. Generally, this information cannot be accurately presented at this time.

5. Water supply: Commercial sources, either at Kanab or Cannonville, trucked to the location.

6. Construction materials: The drill pad will be made from material removed from the reserve pit and from the uphill edge of the pad. No other local construction material will be utilized.

7. Methods for handling waste Disposal: Ordinary trash, sewage, and chemicals and any oil or salt water produced during testing will be trucked out and disposed of in approved commercial facilities. The reserve pit will be lined with 15 mil PVC liner to prevent seepage. Since the drilling fluids to be used are water-based, the reserve pit will be allowed to dry out and will then be filled in.

8. Ancillary facilities: None.

9. Well site layout: Plat is attached. Three sides of the reserve pit will be fenced during drilling, with the fourth side fenced when drilling is completed.

10. Plan for Reclamation of the Surface: After the pits have dried (1-2 months after well completion), the area will be graded to approximately the original contours. The drill pad will then be replanted and re-seeded as follows:

Pinon pine	- 10 seedlings per acre
Juniper	- 10 seedlings per acre
Birch leaf mountain mahogany	- 10 plants per acre
Antelope bitter brush	- 1 pound of seed per acre
Yellow sweet clover	- 1 pound of seed per acre
Indian rice grass	- 1 pound of seed per acre
Galleta	- 1 pound of seed per acre

Seedlings will be mulched. Re-seeding and re-planting will take place next spring, with human reclamation actions completed by June, 1985.

Note that proposed site reclamation will not affect the already-existing road berms or banks, nor the substantial number of dead trees piled beside the road from when it was originally bladed some years ago.

11. Surface ownership: The well location is federally owned, as are the lands crossed by the Deer Range Road, except that section 16 is owned by the state of Utah.

12. Additional information: This application was prepared by Steve Findeiss (tel. 405 840-1199) in conjunction with information supplied by the operator and BLM personnel, and following inspections of the location on 27 May and 15 August, 1984.



13. Operator's field representative: Mr. John Gordon  
Gordon Engineering  
P. O. Box 3525  
Grand Junction, CO 81502  
303 245-1958

I certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Boswell Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



Steven H. Findeiss  
Agent for Boswell Energy Corporation

1994 SEP 10 AM 9 52  
U.S. DEPT. OF ENERGY  
U.S. OFFICE OF LAND MANAGEMENT

BOSWELL MERRY

DEER RANGE #1  
1155 FNL 7 Sec. 32-395-  
2810 REL } 3W  
KANE Co., UTAH

1"=50'

C.I. = 5 feet

V-Door Az = 317° 22'

C or F is Cut or Fill  
from existing ground  
to finish grade.

INVERT

DRAINAGES

NECESSARY

TOPGAL  
STRAKOLE

Access  
Road

RP 150' West  
(6952)

RESERVE PIT

16' x 105' x 100'  
(Bottom @ 6938)

Well

Gr. Elev = 6938  
Fin. Grd = 6942

RP 200'  
South  
(6945)

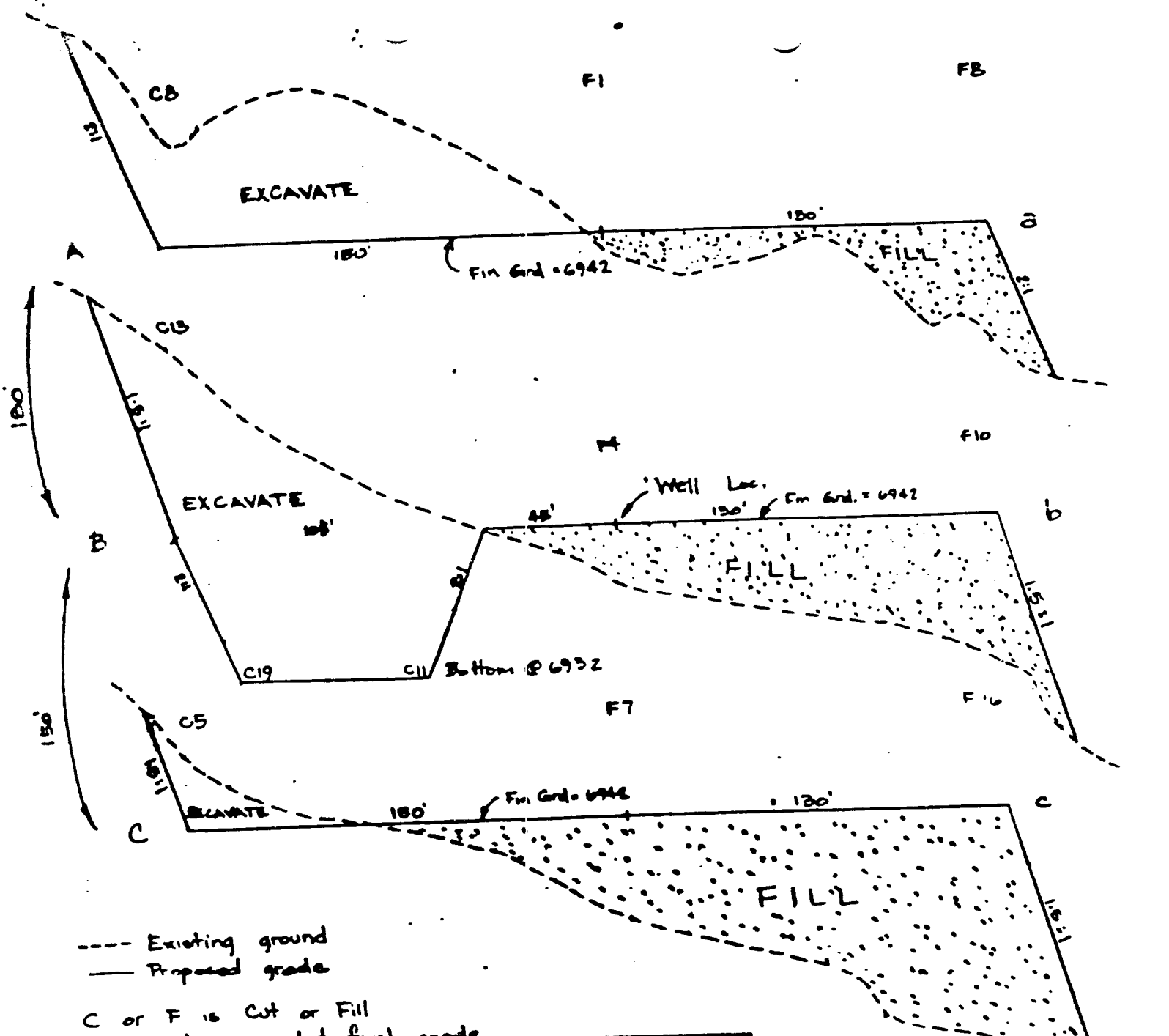
EXCESS

MATERIAL

JULY 27, 1928  
E. AMUEL STUBERMAN

POWERS ELEVATION CO.  
RICHFIELD, UTAH

Note: 6928 is Edge of Rock ledge.



--- Existing ground  
 — Proposed grade  
  
 C or F is Cut or Fill  
 from existing ground to finish grade.  
  
 Scales: 1" = 30' Horiz.  
 1" = 10' Vert.  
  
 Sideslopes as shown.

± 10,175 yds Cut  
 ± 11,125 yds Fill

Quantities will vary with pad size.

BOSWELL ENERGY  
 DEER RANGE #1  
 NW-NE 33-39S-3W  
 KANE CO, UTAH

JULY 27, 1984  
 E.G.G.

POWERS ELEVATION CO.  
 RICHFIELD, UTAH

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CEDAR CITY DISTRICT OFFICE

Summary Report of  
Inspection for Botanical or Zoological  
Resources

BLM Use Only: Use Initials	
Case File No.	
Report Acceptable	Yes ___ No ___
Mitigation Acceptable	Yes ___ No ___
Comments: _____	

Project Name, Developer  
Boswell Energy Corp.

Legal Description of Project Area (Attach Map Also)  
Sec. 33, T 39 S, R 3 W

Type of Project  
Construct Drill Pad

4. Project or EAR No.

Potential T/E Plant/Animal Species Affected  
Psoralea pariensis (proposed to be listed as threatened)

Dates of Field Work  
August 15, 1984

Description of Examination Procedures  
Walk over the flagged site looking for the listed and proposed T&E plants of this area.

Description of Findings (Attach forms of detailed report, if appropriate)  
There were approximately 8 small plants of "Psoralea pariensis" at the south end of the flagged drill pad. Mark littlefield saw many other plants of "Psoralea pariensis" scattered down the ridge to the south of the drill pad, indicating that the drill pad covers only a small portion of the total population on this ridge.

Conclusions/Recommendations  
This project covers only a small edge of this one population of this (proposed to be listed) plant. However, I recommend that the plants at the south end centerline of the pad be avoided because of the minimal impact to operations by avoidance (Personal communication by Pete Kilbourne, BLM with Steve Findeiss, Taha/ Boswell Corp).

Signature of Person in Direct Charge of Field Work

*Blaine R. Luncford* 10-19-84

Signature of Title of Institutional or BLM Officer Responsible

# APPENDIX C

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CEDAR CITY DISTRICT OFFICE

Summary Report of  
Inspection for Botanical or Zoological  
Resources

BLM Use Only: Use Initials

Case File No.

Report Acceptable Yes \_\_\_ No \_\_\_

Mitigation Acceptable Yes \_\_\_ No \_\_\_

Comments:

Project Name, Developer

Boswell Energy

Legal Description of Project Area (Attach Map Also)

See attached E.A.

Type of Project

4. Project or EAR No.

wildcat exploratory well

UT-040-84-96

Potential T/E Plant/Animal Species Affected

Peregrine falcon, Golden eagle

Dates of Field Work

Sept. 11, 1984 Oct. 12, 1984

Description of Examination Procedures

Walked over the proposed site, reviewed raptor files, reviewed wildlife files.

Description of Findings (Attach forms of detailed report, if appropriate)

No threatened or endangered species were found to be present on the site.

Conclusions/Recommendations

This project will not affect any T&E species.

It is my recommendation that this project may proceed with regards to wildlife.

Signature of Person in Direct Charge of Field Work

*Mark A. Smith*

Oct. 18, 1984

Signature of Title of Institutional or BLM Officer Responsible

*Mark A. Smith Wildlife Biologist*

## APPENDIX D

Summary Report of  
Inspection for Cultural ResourcesMitigation Acceptable Yes ☐ No ☐  
Comments: \_\_\_\_\_Report Title L A C R E P O R T 8 4 6 3 \_\_\_\_\_  
40Development Company Boswell EnergyReport Date 0 8 1 9 8 4  
41 42 MONTH 43 YEAR 464. Antiquities Permit No. 84-UT-011Responsible Institution L A P L A T A \_\_\_\_\_ County Kane  
47 61Fieldwork Location: TWN 3 9 S Range 3 W Section(s) 0 9 1 6 1 7 2 1  
62 65 66 69 70 71 72 73 74 75 76 77TWN \_\_\_\_\_ Range \_\_\_\_\_ Section(s) 2 8 3 3 \_\_\_\_\_  
78 81 82 85 86 87 88 89 90 91 92 93Resource Area K A TWN \_\_\_\_\_ Range \_\_\_\_\_ Section(s) \_\_\_\_\_  
110 111 94 97 98 101 102 103 104 105 106 107 108 109PO: PONY EXPRESS, BR: BEAR RIVER, PR: PRICE RIVER, WS: WARM SPRINGS  
BC: BOOK CLIFFS, HR: HOUSE RANGE, SE: SEVIER RIVER  
HM: HENRY MOUNTAINS, BE: BEAVER RIVER, DX: DIXIE  
KA: KANAB, ES: ESCALANTE, SJ: SAN JUAN, GR: GRAND  
SR: SAN RAFAEL, DM: DIAMOND MOUNTAIN,FW in spaces 65, 69, 81, 85, 97, 101 Only if:  
V=Vernal Meridian  
H=Half Township

## Description of Examination Procedures:

series of transects spaced 15m apart walked across 660 X 660' area surrounding well pad center stake and two parallel transects along ca. 4.9 miles of access route inventoried; 20m wide corridor along access surveyed

Linear Miles Surveyed and/or 5 \_\_\_\_\_  
112 117Definable Acres Surveyed and/or 5 0 \_\_\_\_\_  
118 123\* Legally Undefinable Acres Surveyed \_\_\_\_\_  
124

(\* A parcel hard to cadastrally locate i.e., center of section)

10. Inventory Type I  
130R: Reconnaissance  
I: Intensive  
S: Statistical SampleDescription of Findings (attach appendices, if appropriate) 12. Number Sites Found: 0 \_\_\_\_\_  
No sites = 0 131 135

no cultural resources found

13. Collection: N Y=Yes, N=No  
36

Actual/Potential National Register Properties Affected:

NONE

Literature Search, Location/Date:

attempt was made at Kanab BLM office on 8/3/84; unable to complete

Conclusion/Recommendations:

archeological clearance for the project is recommended

*Patricia J. Hender*

8/6/84



Photo #1

View of existing access just within the WSA. Aspect is looking south into the WSA proper.

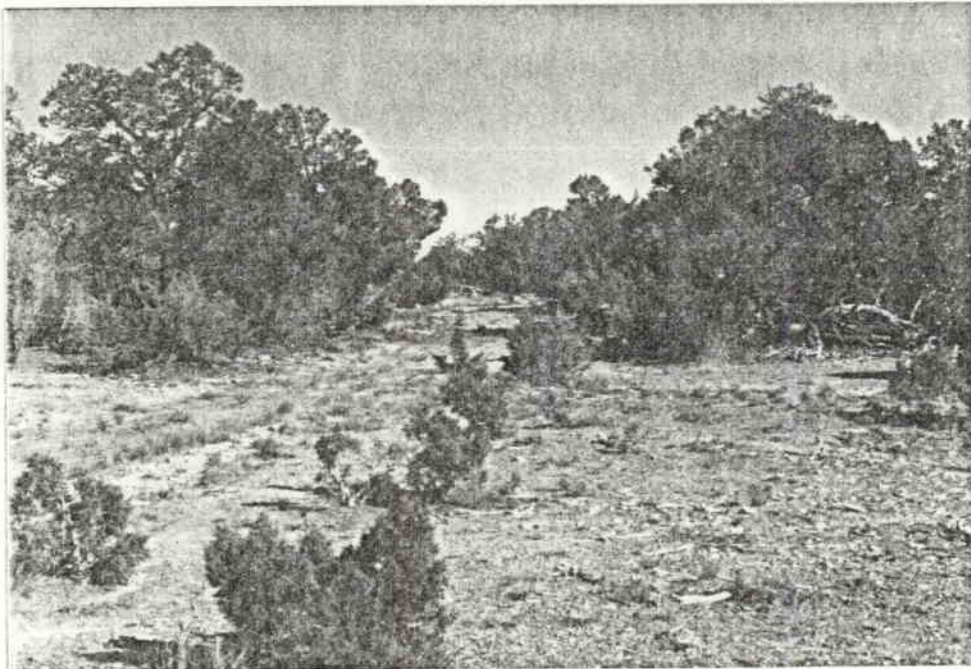


Photo #2

View of access approximately 1/3 mile after entering the WSA.



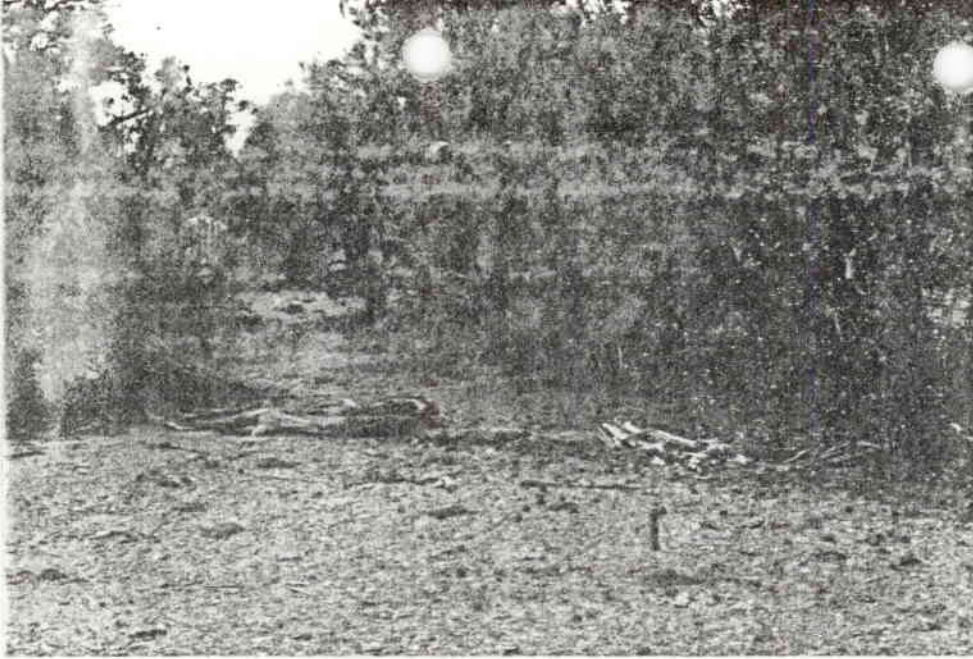


Photo #3

View of proposed drill pad location.

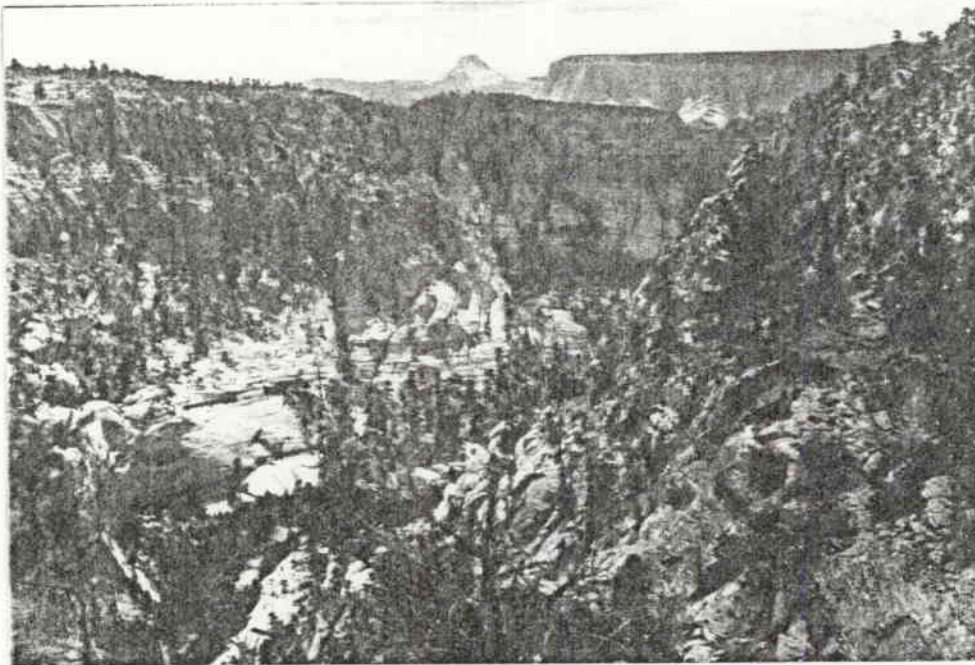


Photo #4

View of Deer Range Canyon taken about 100 feet east of drill pad location.

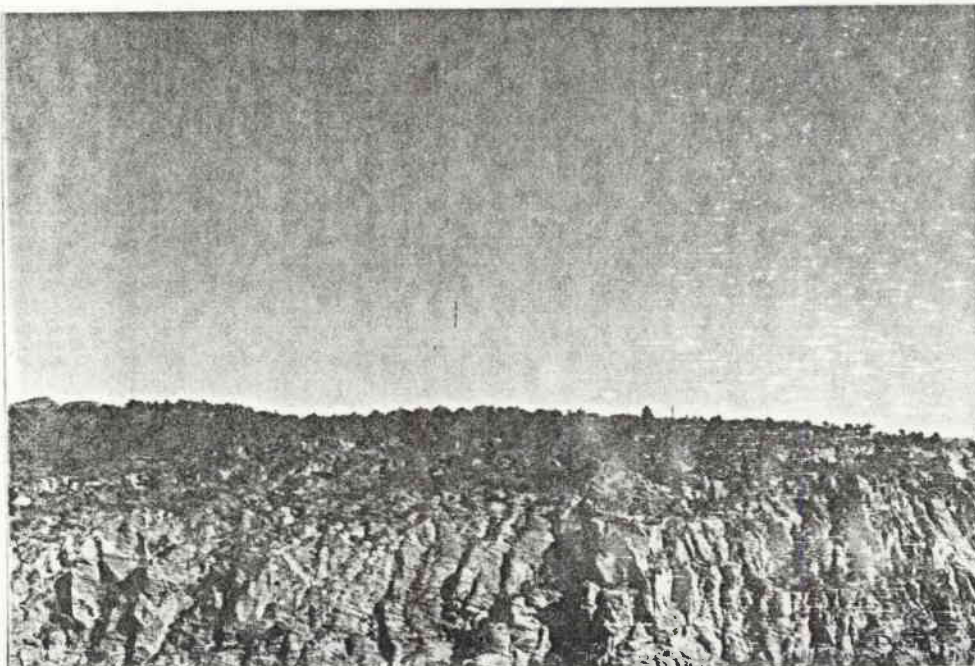


Photo #5

View of ridge on east side of Deer Range Canyon as seen from general location of drill pad. This ridge is the same one shown on the left side of Photo #4. By looking back from this ridge the drill pad can be seen.



RICHFIELD

Map 1

SAN RAFAEL

SEVIER SPRINGS RA

SEVIER RIVER RA

DISTRICT

VERA RA

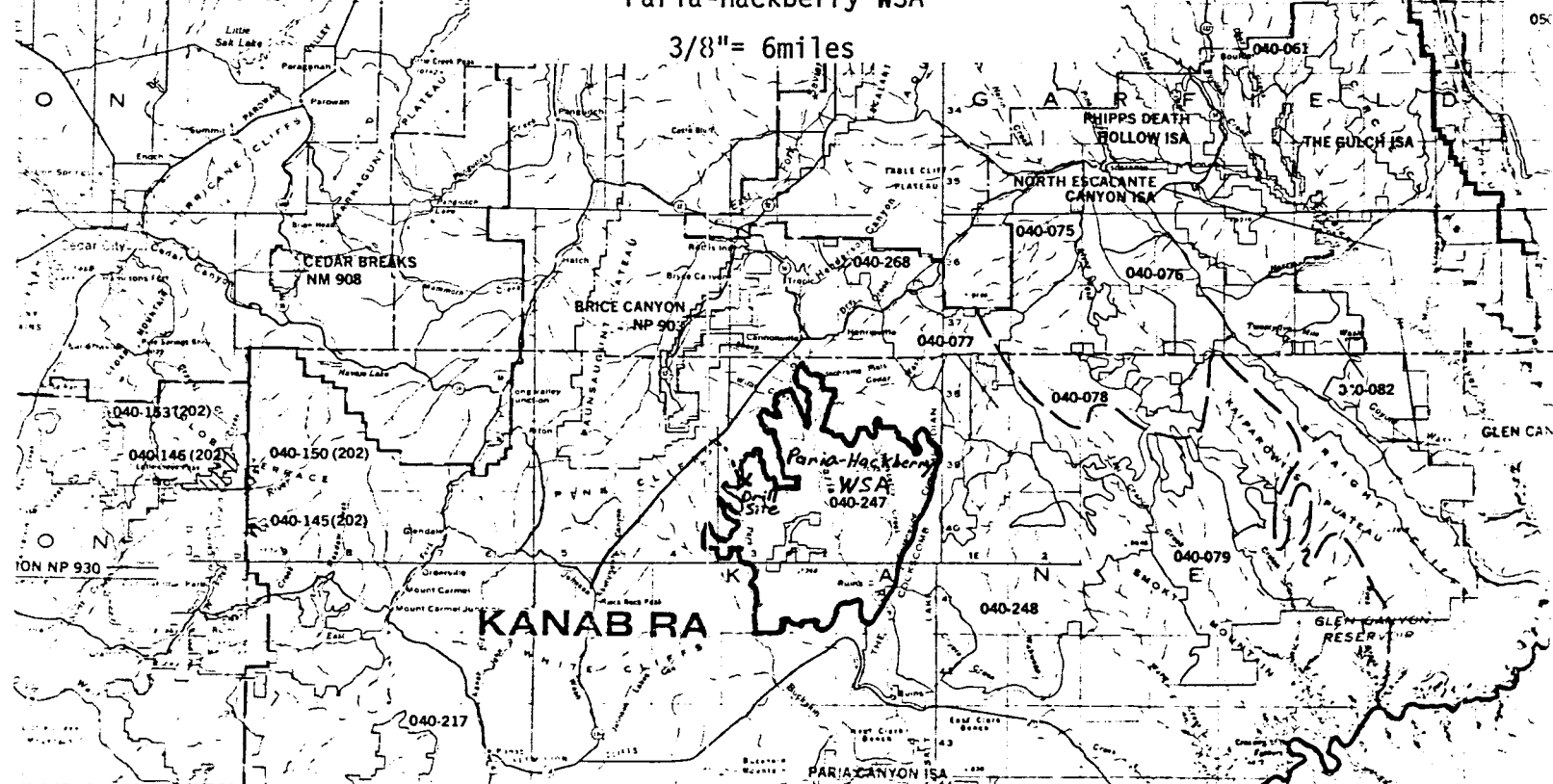
PARIA CITY DIST

LOCATION MAP

BOSWELL ENERGY APD,  
Paria-Hackberry WSA

3/8" = 6miles

NTE RA



AZ-1-41

A

R

AZ-1-8

I

Z

O

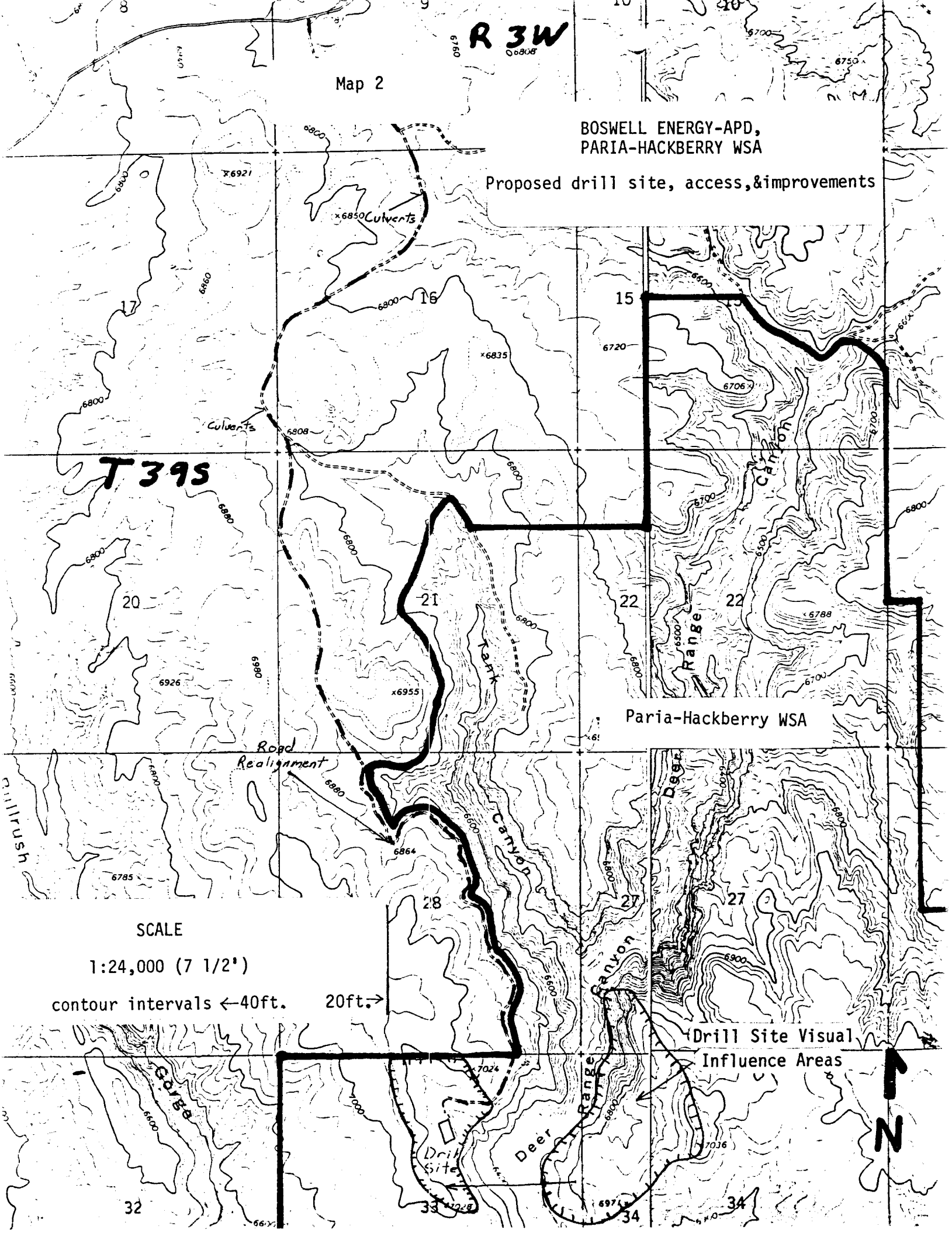
N

R 3W  
Q6808

Map 2

BOSWELL ENERGY-APD,  
PARIA-HACKBERRY WSA

Proposed drill site, access, & improvements



T 39S

Paria-Hackberry WSA

SCALE

1:24,000 (7 1/2')

contour intervals ←40ft. 20ft.→

Drill Site Visual  
Influence Areas





# United States Department of the Interior

IN REPLY REFER TO

3000  
UT-042

BUREAU OF LAND MANAGEMENT  
Cedar City District Office  
P.O. Box 724, 1579 North Main Street  
Cedar City, Utah 84720  
(801) 586-2401

October 5, 1984

Boswell Energy Corporation  
6600 N. Harvey  
Suite 100  
Oklahoma City, Oklahoma 73116

OCT 9 1984

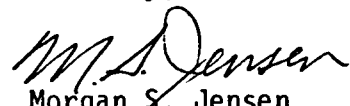
Attn: Steven H. Findeiss

Dear Mr. Findeiss:

On September 10, 1984, the BLM received the Application for Permit to Drill (APD) the Deer Range Federal # 1, located in T. 39 S., R. 3 W., NWNE, Section 33. The Cedar City District is making every effort to process the application as expeditiously as possible. However, because the proposed well is located within the Paria-Hackberry wilderness study area, there are important differences in processing this APD than there would be for a well that is not located in a wilderness study area. Because wilderness study areas are managed under strict guidelines to ensure non-impairment of wilderness values, and because of the controversy often resulting from proposed actions in these areas, we feel that ample opportunity must be allowed for adequate public involvement in the approval process.

The process we are following consists of notifying all interested parties by mail of the proposed action and that we are in the process of completing an environmental analysis. Those who choose to provide input based on this notification, as well as others who request it, will be sent a copy of the environmental analysis, when completed, for comments. The EA will then be finalized and a decision document prepared. Assuming the decision is to approve the APD, a minimum of 15 additional day's time must be allowed to give interested parties sufficient time to prepare a response, legal or otherwise, to the decision.

This process will not permit final action on the APD before December 15, 1984. While we regret any inconvenience or delays the above procedure may cause, we feel there must be time for full public involvement in the process. Since the affected unit will expire after October 23, 1984, unless the obligation well is spudded, and since we do not foresee approval of the APD prior to December 15, 1984, we encourage you to apply for an extension on your obligation date if you do not wish to risk expiration of the unit. This request should be made directly to the State Director, Bureau of Land Management, Utah State Office, University Club Building, 136 East South Temple, Salt Lake City, Utah 84111.

  
Morgan S. Jensen  
District Manager

cc: Bill Martens, UT-922  
Rex Rowley, Kanab Resource Area

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

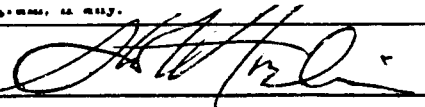
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK


1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>U-40414</b>	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR <b>Boswell Energy Corporation</b>		7. UNIT AGREEMENT NAME <b>Deer Range</b>	
3. ADDRESS OF OPERATOR <b>6600 N. Harvey, Suite 100, Oklahoma City, OK 73116</b>		8. FARM OR LEASE NAME <b>Federal</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface <b>1160' FNL, 2510' FEL (NWNE)</b> At proposed prod. zone <b>same</b>		9. WELL NO. <b>#1</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		10. FIELD AND POOL, OR WILDCAT <b>Wildcat</b>	
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any by <b>Boswell et al</b> )		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>33-T39S-R3W, SLM</b>	
16. NO. OF ACRES IN LEASE <b>320</b>		12. COUNTY OR PARISH <b>Kane</b>	
17. NO. OF ACRES ASSIGNED TO THIS WELL <b>160</b>		13. STATE <b>Utah</b>	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>none</b>		20. ROTARY OR CABLE TOOLS <b>Rotary</b>	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>6938 Ground elevation</b>		22. APPROX. DATE WORK WILL START* <b>10 October, 1984</b>	
23. PROPOSED CASING AND CEMENTING PROGRAM			

RECEIVED

JAN 30 1985

DIVISION OF OIL  
GAS & MINING

24.  **Agent for Operator** DATE **24 August 1984**  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY  **DISTRICT MANAGER** DATE **25 Jan 1985**  
CONDITIONS OF APPROVAL, IF ANY:

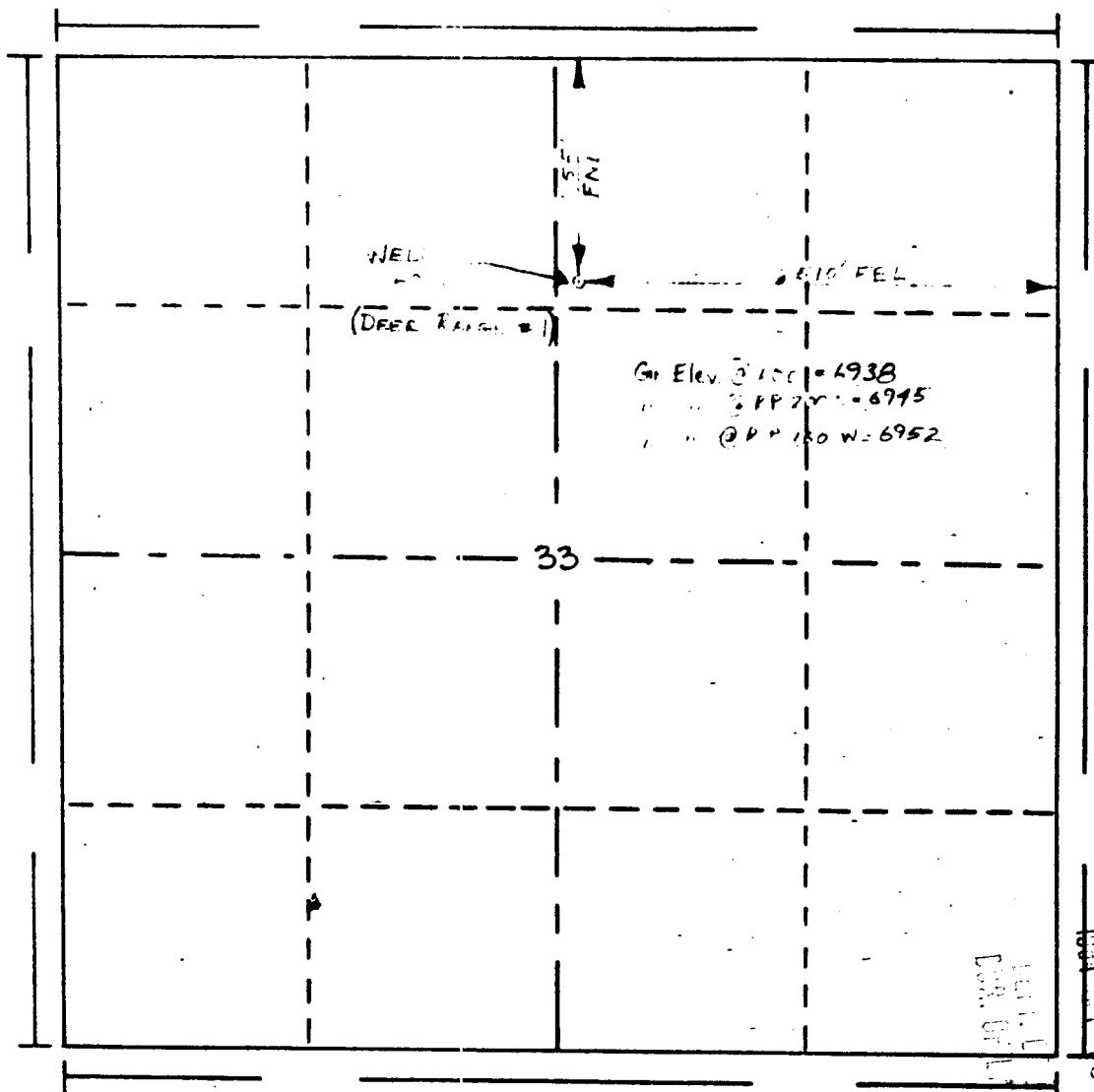
CONDITIONS OF APPROVAL  
ATTACHED TO OPERATORS  
COPY

\*See Instructions On Reverse Side

FLAIRING OR VENTING  
OF GAS IS SUBJECT TO  
NTL4-A DATED 1/1/80



R. 3W



Scale... 1" = 1000'

Powers Elevation of Denver, Colorado  
has in accordance with a request from STEVE FINDEISS  
for BOSWELL ENERGY  
determined the location of DEER RANGE #1  
to be 1155' FNL & 2510' FEL of Section 33 Township 39 S with  
Range 3 West of the SALT LAKE Meridian  
KANE County, UTAH

I hereby certify that this plot is an  
accurate representation of a correct  
survey showing the location of

Date: JULY 27, 1984E. Samuel StegemanLicensed Engineer  
State of COLORADO

No. 20596

Utah exception



CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company: Boswell Energy Corporation Well No: #1  
Location: 1160' FNL, 2510' FEL (NWNE) Sec. 33 Lease No: U-40414  
T 39 S., R 3 W.

A COPY OF THESE CONDITIONS SHOULD BE FURNISHED YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR 3160), approved plan of operations. The operator is considered fully responsible for the actions of his subcontractors. The following items are emphasized:

1. There shall be no deviation from the proposed drilling and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned shall be identified in accordance with 43 CFR 3162.6. Any changes in operations must have prior approval of this office. Pressure tests are required before drilling out from under all casing strings set and cemented in place. Blowout preventer controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. All BOP pressure tests must be recorded on the daily drilling report.
2. All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and furnished this office for analysis. All oil and gas shows will be adequately tested for commercial possibilities, reported and protected.
3. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of this office. If operations are to be suspended, prior approval of this office must be obtained and notification given before resumption of operations.

In the event abandonment of the hole is desired, an oral request may be granted by this office, but must be timely followed within 15 days with a "Notice of Intention to Abandon" (Form 3160-5). Unless the plugging is to take place immediately upon receipt of oral approval, the District Manager must be notified at least 48 hours in advance of the plugging of the well in order that a representative may witness plugging operation. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form 3160-5) must be submitted within 15 days after the actual plugging of the well bore, reporting where the plugs were placed, and the current status of the surface restoration. If surface restoration has not been completed at that

time, a followup report on Form 3160-5 should be filed when all surface restoration has been completed and the location is considered ready for final inspection.

4. The spud date will be reported orally to the respective District Manager's office within 48 hours after spudding. If the spudding occurs on a weekend or holiday, wait until the following regular workday to make this report.

Periodic drilling progress reports must be filed directly with the District Office on a frequency and form or method as may be acceptable to the District Manager.

In accordance with NTL-1, this well must be reported on Form 3160-6 "Monthly Report of Operations," starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report should be filed, in duplicate, directly with Royalty Management Accounting Center, Minerals Management Service, P.O. Box 2859, Casper, Wyoming 82602.

Any change in the program must be approved by the District Manager. "Sundry Notices and Reports on Wells" (Form 3160-5) must be filed for all changes of plans and other operations in accordance with 43 CFR 3162.4.1. Emergency approval may be obtained orally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alteration of the facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground will require the filing of a suitable plan pursuant to NTL-6, and prior approval by the District Manager.

5. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 15 days after completion of the well or after completion of operations being performed, in accordance with Onshore Oil and Gas Order No. 1; VIII. Reports and Activities Required after Well Completion. Two copies of all logs run, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cutting, fluid, and/or gas) will be submitted only when requested by this office.
6. Significant surface values are involved at this location. Accordingly, you must notify the District Manager at least 48 hours prior to commencing field operations to allow this office to have personnel present for consultation during the construction of roads and locations.

The Cedar City District Office Address is:

1579 North Main, Cedar City, Utah 84720  
(801) 586 2401

Your contact is: Theron Mitchell  
Office Phone: (801) 586 2401  
Home Phone: (801) 826 4347 or 586 2719

7. Unless otherwise specified herein, construction and maintenance of surface facilities approved under this plan shall be in accordance with the guidelines set forth in the BLM/FS/GS Oil and Gas Brochure entitled, "Surface Operating Standards for Oil and Gas Exploration and Development." This includes but is not limited to such items as road construction and maintenance, handling of top soil and rehabilitation.
8. If a replacement rig is contemplated for completion operations, a "Sundry Notice" to that effect must be filed, for prior approval of the District Manager, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.
9. Pursuant to NTL-2B requirements regarding disposal facilities for new wells, this is authorization for unlined pit disposal of the water produced from this well for a period of 90 days from the date of initial production for sales purposes. During this period, an application for approval of the permanent disposal method, along with the required water analysis and other information must be submitted for the District Manager's approval. Failure to timely file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order until the application is submitted.
10. This permit is valid for a period of one year from the date of approval. If construction does not commence within 90 days from approval, the operator must contact this office 15 days prior to beginning construction. Construction under adverse conditions may require additional stipulations. If the permit terminates, any surface disturbance created under the application must be rehabilitated in accordance with the approved plan. After termination, it is required that a new application be filed for approval for any future operations.
11. If a tank battery is constructed on this lease, it must be surrounded by a fire wall of sufficient capacity to adequately contain the storage capacity of the battery.
12. This Application for Permit to Drill is approved subject to the requirement that, should the well be successfully completed for production, this office must be notified when it is placed in a producing status. Such notification will be by telegram or other written communications, and must be received in this office by not later than the first business day next following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - a. Operator name, address and telephone number.
  - b. Well name and number.
  - c. Well location ( $\frac{1}{4}$ ,  $\frac{1}{4}$  Section, Township, Range and Prime Meridian).
  - d. Date was placed in a producing status.
  - c. The nature of the well's production, i.e. crude oil, or crude oil and casinghead gas, or natural gas and entrained liquid hydrocarbons.



- f. The OCS, Federal or Indian lease prefix and number on which the well is located, otherwise, the non-Federal or non-Indian land category, i.e. State or private.
- g. If appropriate, the unit agreement name, number and participating area name.
- h. If appropriate, the communitization agreement number.

SUPPLEMENTAL STIPULATIONS OF APPROVAL ATTACHED

The following stipulations will be required.

1. Initial revegetation must be done in the fall of 1985. Only native plant species will be used for revegetation.
2. Revegetation efforts will be required until considered successful by the authorized officer.
3. In order to ensure that the eight individual Paria breadroot plants that lie near the south end centerline of the pad are not impacted, the area will be flagged by BLM personnel and avoided by the operator.
4. The area actually excavated for the drill pad must not exceed the area needed for operations.
5. All efforts must be made to place the drilling equipment within the topography such that surface disturbance will be kept to a minimum.
6. All trees and limbs exceeding 4" in diameter will be cut into conveniently manageable lengths and neatly stockpiled outside the Wilderness Study Area in an area designated by the Authorized Officer. Smaller vegetative waste will be stockpiled and burned except for materials such as twigs and needles suitable for mulch which may be applied to the reclamation area to enhance moisture holding capabilities of the soil. When possible, stumps may be disposed of by burning. However, any remaining unburned stumps and other vegetative waste must be disposed of outside of the Wilderness Study Area in an area designated by the Authorized Officer.
7. Any rocky or carbonate soils must be placed at the bottom of the reclaimed soil profile in order to reduce changes in soil color and texture, and to ensure successful revegetation. Any available topsoil will be stockpiled for replacement at the surface during reclamation.

RECEIVED  
MAY 12 1986

DIVISION OF  
OIL, GAS & MINING

April 5, 1986

Boswell Energy Corporation  
6600 N. Harvey, Suite 100  
Oklahoma City, OK 73116

Re: Rescind Application for Permit  
to Drill  
Well No. 1 (Deer Range Unit)  
Section 33, T. 39S., R. 3W.  
Kane County, Utah  
Lease No. U-40414

Gentlemen:

The Application for Permit to Drill the referenced well was approved on January 25, 1985. Since that date no known activity has transpired at the approved location. Under current District policy, applications for permit to drill are effective for a period of one year. In view of the foregoing this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

Sincerely,

District Manager

bcc: U-922  
Well File



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 13, 1986

Boswell Energy Corporation  
6600 N. Harvey, Suite 100  
Oklahoma City, Oklahoma 73116

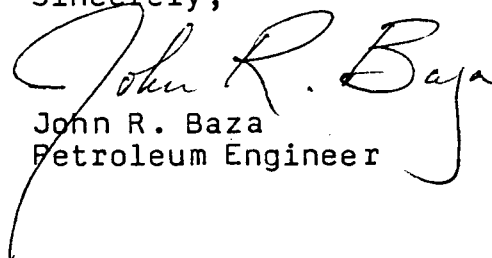
Gentlemen:

RE: Well No. Deer Range Unit Federal #1, Sec.33, T.39S, R.3W,  
Kane County, Utah, API NO. 43-025-30020

In concert with action taken by the U.S. Bureau of Land Management, approval to drill the above referenced well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval, prior to future drilling of the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

  
John R. Baza  
Petroleum Engineer

sb

cc: BLM-Salt Lake  
D. R. Nielson  
R. J. Firth

Well file

0278T-68